

Listing and Amendments to the Claims

10/540244

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This listing of claims will replace the claims that were published in the PCT
Application:

1. (original) A method of correcting a color characteristic of an image displayed
in response to a video signal comprising the steps of:

A) processing the video signal for predicting a variation in a physical
characteristic of a display device displaying the image;

B) processing the video signal for determining a change in the color
characteristic occurring in response to the variation in the physical characteristic; and

C) modifying the video signal for compensating for the change in the color
characteristic.

2. (original) The method of claim 1 wherein the display device
comprises a color picture tube and wherein step A comprises the steps of:

processing the video signal for predicting a temperature distribution of a mask
of the color picture tube; and

predicting a change in a location of an aperture of the mask relative to an
initial location occurring in response to the temperature distribution.

3. (original) The method of claim 1 wherein the display device
comprises a color picture tube and wherein step B comprises the steps of:

determining a change in a register characteristic of an electron beam occurring
in response to the variation in the physical characteristic; and

determining a change in the color characteristic occurring in response to the
change in the register characteristic.

4. (original) The method of claim 2 wherein step B comprises the steps of:

determining a change in a register characteristic of an electron beam occurring in response to the change in the location of the aperture in the mask; and

determining a change in the color characteristic occurring in response to the change in the register characteristic.

5. (currently amended) The method of claim 2 ~~or claim 4~~ wherein the step of determining the temperature distribution comprises the steps of

determining the temperature distribution relative to a reference temperature distribution; and

integrating an effect of a current density distribution of a beam current of the color picture tube on the mask over time.

6. (currently amended) The method of claim 3 ~~or 4~~ wherein the step of determining a change in the register characteristic comprises the step of processing the video signal for predicting a space charge repulsion characteristic associated with a plurality of electron beams projected through the mask.

7. (currently amended) The method of claim 1, ~~5, or 6~~ wherein the step of modifying the video signal comprises the steps of:

determining a change in a beam current of the color picture tube necessary to compensate for the change in the color characteristic; and

modifying the video signal for producing the beam current change.

8. (original) A method of correcting a color characteristic of an image displayed in response to a video signal comprising the steps of:

processing the video signal for determining a temperature variation of a mask of a color picture tube;

determining in response to the temperature variation a change in a location of an aperture of the mask relative to an initial location;

determining in response to the change in location of the aperture a change in a register characteristic of an electron beam projected through the aperture in the mask;

determining a change in the color characteristic occurring in response to the change in the register characteristic; and

modifying the video signal for correcting for the change in the color characteristic.

9. (original) The method of claim 8 wherein the step of determining the change in the register characteristic comprises the step of:

processing the video signal for predicting a space charge repulsion characteristic associated with a plurality of electron beams projected through the mask.

10. (currently amended) The method of claim 8 ~~or 9~~ wherein the step of modifying the video signal comprises the steps of:

determining a change in a beam current of the color picture tube necessary to compensate for the change in the color characteristic; and

modifying the video signal for producing the beam current change.

11. (original) Apparatus for correcting a color characteristic of an image displayed in response to a video signal comprising:

means for processing a video signal for predicting a variation in a physical characteristic of a display device displaying an image in response to the video signal, and for processing the video signal for determining a change in a color characteristic of the image occurring in response to the variation in the physical characteristic; and

means for modifying the video signal for compensating for the change in the color characteristic.

Amendments to the Abstract

Please **add** the following Abstract to this application.

-- A system for correcting a color characteristic of an image displayed in response to a video signal involves processing the video signal for predicting a variation in a physical characteristic of a display device displaying the image, processing the video signal for determining a change in the color characteristic occurring in response to the variation in the physical characteristic, and modifying the video signal for compensating for the change in the color characteristic. --